GOLUBEV, T.M., prof., doktor tekhn.nauk; TSELUYKOV, V.S., inzh.

Transverse flow of material in contact with the focal point of strain in rolling. Izv.vys.ucheb.zav.; chern.met. no.10:105-112 O '58.   (MIRA 11:12)

1. Kiyevskiy politekhnicheskiy institut i Sibirskiy metallurgicheskiy institut.

(Rolling (Metalwork))

GOLUBEV, T.M., doktor tekhn.nauk, prof.; CHELYSHEV, N.A., kand.tekhn.nauk,
    dots.; KAFTANOV, M.P., inzh.; KUZNETSOV, N.Ye., inzh.;
    BOYCHENKO, S.M., inzh.; ZHURAVLEV, M.A., inzh.

Operations of a forge blooming mill with use of automatic
control. Izv.vys.ucheb.zav.; chern.met. 2 no.7:59-74
Jl '59.   (MIRA 13:2)

1. Sibirskiy metallurgicheskiy institut. Rekomendovano kafedroy
obrabotki metallov davleniyem Sibirskogo metallurgicheskogo
instituta.
            (Rolling mills) (Automatic control)

S/148/60/000/012/018/020
A161/A133

AUTHORS: Golubev, T. M.; Chelyshev, N. A., and Kaftanov, M. P.

TITLE: The Kuznetsk blooming mill screwdown operation with automatic
control

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya,
no. 12, 1960, 151 - 161

TEXT: The screwdown mechanism of the KMK blooming mill (Fig. 1, kine-
matic circuit) has been studied in automatic operation and with manual con-
trol, by oscillographing the screwdown motor armature current, voltage, ex-
citation current, and r.p.m. (Fig. 2, circuit diagram). The results are
shown in oscillograms and two detailed tables prepared from the oscillo-
grams. The screwdowns system includes two vertical MПB42,3/78 (MPV42.3/78)
motors, of 200/300 kw, 220/330 v, 990/970 amp, 21.5 amp excitation current
at 500/750/1,000 r.p.m.; a chain of 7 helical pinions in line in the hori-
zontal plane with three idle pinions in the middle designed for synchroniz-
ing the motors. The large gears rotating the screws are 1,861 mm in diam-
eter. The driving pinions are fixed on the motor shaft shanks. The middle

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S/148/60/000/012/018/020

The Kuznetsk blooming mill screwdown operation...   A161/A133

pinions are so mounted in separate sockets that replacement is possible
without dismantling the whole system; the central pinion can be lifted out
of mesh by a special pneumatic device when the top roll has to be adjusted
horizontally. The automatic controls of the screwdowns are located on three
panels and 12 commutator boards, including 297 relay-contactor units. The
top roll is moved automatically; the programmer permits setting several
reduction programs at a time. The tracing selsyn-transformer system permits
rough and accurate mismatch readings. The top roll motion ranges are set
by plug program commutators, with corresponding transformer lead connections.
The operator selects the program by push buttons. Thirty ingots of rimmed
and rail steel were rolled during observations, into 300 x 330 and 320 x
330 blooms, in 11 passes with 3 edgings. The total inertia moment of the
two motors and the entire system is 520.34 kg-m^2. The movements of the top
roll were slightly faster with automatic control than with manual, due to
the changing magnetic field of the motors; overloads were observed in man-
ual control through untimely switching. Delay after metal ejection from
the rolls in automatic operation was more frequent than advance, and vice
versa with manual control. Delay always occurred in passes preceding edging.

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The Kuznetsk blooming mill screwdown operation... A161/A133

Acceleration between advance and lag was 0.38 - 0.62 sec in automatic opera-
tion and reached 3 - 4 sec with manual control. With both kinds of control
and steel grades and in all passes except for the 6, 7, 8 and 10, the screws'
motion ended 0.1 - 3.0 sec ahead of the rolls' grip on metal. In the passes
6, 7, 8 and 10, the screws were frequently braked by the ingot, due to down-
motion of the screws during the gripping - the motion lasted 0.2 - 0.4 sec,
and the screws stopped when the contact between metal and rolls was 150 -
200 mm long. In the 8th pass the motion was more complex - the screws des-
cended for 0.2 sec during the clamping, with about 100 mm contact of rolls
with metal, then rose 1 mm during 0.4 sec. This sharply increased the brak-
ing effect, deceleration reached a maximum of 184 mm/sec and the recupera-
tive energy dropped to 9%. In automatic rolling rimmed steel the screw-
downs always switched on either at the moment of ejection or after, the
screws started maximum 0.5 sec after ejection and ahead of grip. The switch-
ing time of the motors during the work cycle exceeded the screws motion time
by 9 sec. After the 10th pass the screws reciprocated several times in one
interval. The photo-relay operation was not exact, and switching happened
in the mid of pass. Manual intrusions were used frequently to redistribute
reduction on passes and facilitate grip, or to reduce load on the main drive

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S/148/60/000/012/018/020

The Kuznetsk blooming mill screwdown operation... A161/A133

at uneven ingot temperatures. Intrusions were used almost systematically
for hours, then rarely. Conclusions: 1) Screwdown motor load with equi-
valent current is 845 - 947 amp at 52% switching time and 914 amp at 35%.
The motors reach 290 - 465 rpm. during the screws down-motion for 34 - 91
mm, and the screws speed is 48 - 78 mm/sec. The overload at the start and
braking is 1.41 - 1.95. 2) The acceleration time is 50% of the total screw
motion time. In many passes the screwdowns determined the interval for the
whole mill. Acceleration can be speeded up 30 - 50%, for the permissible
motor overload is 2.5. Recuperative braking may be also intensified. It
is very important to reduce the high inertia moment. 3) The practice of
speeding (in automatic and manual work) by switching on ahead of ejection of
metal, and by stopping the screws with metal in rolls would be permissible
with accurate actions, but not as it is being done now, for it causes heavy
overloads in the whole system and this means premature brakedown. For such
operations as this, the whole mechanism ought to be reinforced. 4) The
maximum speed of the motors must be raised to 750 r.p.m. for lifting the
screws, or more, by raising the armature nominal voltage to 330 v and reduc-
ing the magnetic field. This will cut the rolling start interval on new in-

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The Kuznetsk blooming mill screwdown operation... A161/A133

gots, for the guide bars reach the initial position 2 sec ahead of the
screws. 5) Raising the intensity of the magnetic field in automatic work
has little sense, as the magnetic flux only rises 1.09 - 0.11 times when the
excitation current rises 1.48 - 1.56 times, however, the control system is
made too complex and the excitation winding is overloaded. Acceleration may
be speeded up by a stronger armature current and lower inertia moment. The
armature current may be limited by the old 190% level for the case of switch-
ing-on with metal between the rolls. 6) Automatic switching is more accu-
rate in relation to the ejection moment. In many cases switching must be
done earlier, i.e. 0.1 - 0.3 sec ahead of ejection. The ejection point con-
trol may be produced by the mill motor armature current, and the screwdowns
motors switching on must be made permissive at with a drop in current to a
definite level, and the same may be done for manual control. 7) The screw-
down motors work 84 - 93% times in starting and braking, hence the start
and the brake moment must be raised. Motors with 750 rpm. basic speed are
of no use as only 290 - 465 rpm. are reached, and motors of the same power
but lower basic speed (500 rpm.) and higher torque at the same inertia mo-
ment would be better. This will speed up the start and braking, and reduce
overloads. The speed above the base must be raised by lower magnetic field,

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The Kuznetsk blooming mill screwdown operation....   S/148/60/000/012/018/020
A161/A133

particularly in the screws' upward motion at work cycle end. The armature current in steady lifting speed is only 330 - 350 amp (or 34 - 36% of the nominal), and can be safely raised if the field is weakened. There are 4 figures and 2 tables.

ASSOCIATION: Sibirskiy metallurgicheskiy institut (Siberian metallurgical institute)

SUBMITTED: December 30, 1959

Card 6/10

GOLUBEV, Timofey Mikhaylovich; BEREZNYUK, V.A., otv. red.; TEPLYAKOVA, A.S.,
red.; MATVIICHUK, A.A., tekhn. red.

[New methods of press forging of metals] Novye metody obrabotki metal-
lov davleniem. Kiev, 1961. 45 p. (Obshchestvo po rasprostraneniiu
politicheskikh i nauchnykh znanii Ukrainskoi SSR. Ser.7, no.4)
(MIRA 14:11)

(Forging)   (Powder metal processes)

PHASE I BOOK EXPLOITATION   SOV/5580

Golubev, T.M., Doctor of Technical Sciences, Professor, and I.P. Tartakovskiy, Candidate of Technical Sciences, Docent, eds.

Avtomatizatsiya kholodnoshtampovochnogo proizvodstva (Automation of Cold [Metal] Stamping Production) Moscow, Mashgiz, 1961. 282 p. 6,000 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov UkrSSR Institut tekhnicheskoy informatsii. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Kiyevskoye oblastnoye pravleniye. Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Ukrainskoye respublikanskoye pravleniye.

Ed.: M.S. Soroka; Tech. Ed.: M.S. Gornostaypol'skaya; Chief Ed.: (Southern Dept. Mashgiz): V.K. Serdyuk, Engineer.

PURPOSE: This collection of articles is intended for workers at machine and instrument plants and scientific research and design institutes.

Card 1/5

Automation of Cold [Metal] Stamping Production   SOV/5580

COVERAGE: The collection contains reports delivered at the Kiyev Scientific and
   Technical Conference by workers of machine and instrument plants, design
   organizations, and scientific research and educational institutes. The
   Conference was sponsored by the Kiyevskoye oblastnoye pravleniye Nauchno-
   tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (Kiyev Oblast
   Administration of the Scientific and Technical Society of the Machine-Building
   Industry) and by the Ukrainskoye respublikanskoye pravleniye Nauchno-
   tekhnicheskogo obshchestva priborostroitel'noy promyshlennosti (Ukrainian
   Republican Administration of the Scientific and Technical Society of the In-
   strument-Making Industry). The purpose of the Conference was to discuss the
   achievements and practical experience (especially at the Gor'kiy Automobile
   Plant, the VEF Plant, and Leningrad factories) in the automation of stamping
   production. The Conference also served to acquaint a wide number of machine
   and instrument builders with the present state of automation in these fields
   and with the prospects for its further development. Papers dealing with ex-
   perience in the design and operation of automatic devices, presses, and auto-
   matic production lines used in stamping production were discussed. No
   personalities are mentioned. References accompany most of the articles.

TABLE OF CONTENTS:

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Automation of Cold [Metal] Stamping Production   SOV/5580

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Automation of Cold [Metal] Stamping Production   SOV/5580

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Automation of Cold [Metal] Stamping Production   SOV/5580

AVAILABLE: Library of Congress

Card 5/5   VK/wrc/mas
                                                          9-13-61

GOLUBEV, T.M.

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PHASE I BOOK EXPLOITATION   SOV/5789

Nauchno-tekhnichoskaya konferentsiya po razvitiyu proizvoditel'nykh sil Kiyevskogo ekonomicheskogo rayona

Goryachaya obrabotka metallov; trudy konferentsii. vyp. 2. (Hot Working of Metals; Transactions of the Scientific Technological Conference on the Development of the Productive Forces of the Kiyev Economic Region. no. 2) Kiyev, Izd-vo AN UkrSSR, 1960. 142 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk Ukrainskoy SSR. Sovet po izucheniyu proizvoditel'nykh sil UkrSSR. Ik. Komissiya ... ... khozyaystva ... ...

Editorial Board: Resp. Ed.: ... ... Academy of ... ... UkrSSR; G.M. Tretyakov; Ed. of Publishing House: T.M. Goluber, Tech. Ed.: G.A. ... ...

PURPOSE: This collection of articles is intended for technical personnel in machine plants and planning organizations, scientific workers, and teachers in technical schools of higher education.

Card 1/6

GOLUBEV, T.M.

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Hot Working of Metals (Cont.)

SOV/5789

COVERAGE: The book is devoted to problems of the introduction of advanced technology and processing in founding and preworking. Problems in powder metallurgy are also analyzed. No personalities are mentioned. References accompany some of the articles. There are 56 references, mostly Soviet.

TABLE OF CONTENTS:

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Hot Working of Metals (Cont.)   SOV/5789

Golubev, T.M. [Doctor of Technical Sciences; Kiyevskiy politekhniche-
skiy institut-Kiyev Polytechnic Institute], Outlook for the Use of
Die-Rolled Stock   79

Gorshkov, A.A., and N.I. Polkin [Engineer, deceased;Institute of Found-
ing of the Academy of Sciences UkrSSR]. New Methods in the Magnesium
Treatment of Molten Cast Iron   91

Kryzhanovskiy, O.M., V.I. Vrublevskiy, and V.Ya. Soltyk [Engineers;
Institute of Founding of the Academy of Sciences UkrSSR].Automatically
Sustaining the Maximum Temperature of Overheated Cast Iron in a Cupola 102

Dubroo , V.V. [Candidate of Technical Sciences; Institute of Founding
of the Academy of Sciences UkrSSR]. Replacement of Malleable Cast-
Iron Blanks by Those of Nodular Cast Iron   109

Livov,G.K. [Docent; Kiyev Polytechnic Institute]. New Processes in
the Heat Treatment of Steel   116

Card 4/6

GOLUBEV, T.I. [Holubtev, T.I.], prof.

Founder of the science of metals. Nauka i zhyttia 11 no.9:46-47
S '61.   (MIRA 14:10)
        (Lomonosov, Mikhail Vasil'evich, 1711-1765)

GOLUBEV, T.M., doktor tekhn.nauk; DYADECHKO, G.P., inzh.; KOKHRYAKOV,
B.D., kand.tekhn.nauk [deceased]

Investigating the process of vibration drawing. Met. i gornorud.
prom. no.3:70-73 My-Je '62.   (MIRA 15:9)

1. Khartsyzskiy staleprovoloohno-kanatnyy zavod.
(Wire drawing) (Vibrators)

GOLUBEV, T.M., doktor tekhn. nauk; DYADECHKO, P., inzh.;
KHOKHRYAKOV, B.D. [deceased]

Influence of vibratory drawing on the quality of wire. Met.
i gornorud. prom. no.6:56-59 N-D '62.   (MIRA 17:8)

1. Kiyevskiy politekhnicheskiy institut (for Golubev, Dyadechko).
2. Khartsyzskiy staleprovolochno-kanatnyy zavod (for Khokhryakov).

GOLUBEV, T.M., doktor tekhn. nauk; NIZKOV, A.A., kand. tekhn. nauk

Longitudinal rolling of periodic sections on an experimental
mill with a hydraulic tracing servo system. Met. i gornorud.
prom. no.1:41 Ja-F '64.   (MIRA 17:10)

GOLUBEV, T.M., doktor tekhn.nauk

Potentialities for lowering the cost of rolled products.
Met. i gornorud. prom. no. 2:32-33 Mr-Ag '64.   (MIRA 17:9)

GOLUBEV, T.M., doktor tekhn. nauk ; YAVORSKIY, V.N., inzh.

   Vibratory metalworking by pressure. Mashinostroenie no.6:69-70
   N-D '64   (MIRA 18:2)

L 1456-66 EWP(o)/EWT(m)/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b) JD

ACC NR: AP5023349   SOURCE CODE: UR/0304/65/000/005/0079/0080

AUTHOR: Ivashchenko, V. V. (Engineer); Tartakovskiy, I. P. (Candidate of technical sciences); Golubev, T. M. (Doctor of technical sciences)

ORG: none

TITLE: Intensification of the vibratory densification of spherical powders

SOURCE: Mashinostroyeniye, no. 5, 1965, 79-80

TOPIC TAGS: metal powder, spheric metal powder, powder densification, vibratory densification, static pressure effect

ABSTRACT: The vibratory densification of spherical powders can be intensified by superimposing a static pressure of 0.07—0.5 kg/cm^2 on the vibrating powder. In experiments with spherical metal-powder fractions (-05 +04) and (-016 +01), the most effective densification was achieved at a vibration frequency of 100 cps and an additional static pressure of 0.22 and 0.07—0.22 kg/cm^2, respectively. Increasing the vibration amplitude within 10—40μ had practically no effect on the degree and rate of densification. The vibratory densification is most effective when the additional pressure is applied after 20—30 sec of free vibratory densification. In vibratory densification under static pressure, the clearance between the die sides and the punch should be smaller than the size of the smallest powder particle. The usual vibration densification time is 140—180 sec. The experiments were conducted at the Refractory

Card 1/2   UDC: 621.762

L 4456-66

ACC NR: AP5023349   3

Metal Section of the Institute of the Problems of the Science of Materials, Ukrainian
Academy of Sciences. Orig. art. has: 2 figures.   [MS]

SUB CODE: MM, IE/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS: 4/96

Card 2/2

L 01802-66   EWP(e)/EWT(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b)   IJP(c)   JD

ACCESSION NR: AP5020768   UR/0226/65/000/008/0035/0039

AUTHOR: Ivashchenko, V. V.; Tartakovskiy, I. P.; Golubev, T. M.

TITLE: Investigation of the densification of spherical powders by vibration

SOURCE: Poroshkovaya metallurgiya, no. 8, 1965, 35-39

TOPIC TAGS: metal powder, spherical metal powder, powder densification, vibration densification, compacted powder density

ABSTRACT: The effect of vibration on the rate and degree of densification of loose spherical powders has been investigated. Two fractions of spherical copper powders with a particle size of -0.5 + 0.4 or -0.16 + 0.1 mm, loosely poured into a vertical container, were subjected to axial vibrations for up to 180 sec at a frequency of up to 150 cps and an amplitude of up to 40 μ. The maximum rate of densification of either fraction was observed in the first 5—10 sec; it then decreased with time and no further densification occurred after 180 sec. The densification rate in the initial period was higher at higher vibration frequencies. The highest density in the

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L 01802-66

ACCESSION NR: AP5020768

-0.16 + 0.1 mm fraction, 5.26 g/cm^2 (the initial loose-powder density was 4.6—4.7 g/cm^2), was obtained with vibrations at a frequency of 100 cps and an amplitude of 5 μ. Each investigated powder fraction attains the most intense compaction in its own specific band of optimal amplitudes and frequencies. At a constant vibration amplitude, both the densification rate and the density increase with increasing frequency and reach a maximum at optimal amplitudes whose magnitude decreases with increasing frequency. For the -0.16 + 0.1 mm friction at a vibration frequency of 50 cps, the optimum amplitude range was 10—30 μ. Vibrations at higher than optimum amplitudes led to loosening. Under identical vibration parameters the density of coarse powder was higher than that of fine powder. Also, in the range of optimal amplitudes the time required to obtain a given density decreased with increasing (within definite limits) frequency. The general conclusion is that densification by vibration offers definite advantages in making filters and other porous parts from spherical powders. Orig. art. has: 6 figures.   [MS]

ASSOCIATION: Kiyevskiy politekhnicheskiy institut (Kiev Polytechnic Institute)

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L 01802-66

ACCESSION NR: AP5020768

SUBMITTED: 23Nov64

NO REF SOV: 005

ENCL: 00

OTHER: 001

SUB CODE: MM, AS

ATD PRESS: 4c85

Card   3/3

IVASHCHENKO, V.V.; TARTAKOVSKIY, I.P.; GOLUBEV, T.M.

Investigating the vibrational compaction of two-component
spherical powder systems. Porosh. met. 5 no.9:40-44 S '65.

(MIRA 18:9)

1. Kiyevskiy politekhnicheskiy institut.

GOLUBEV, T.M.; DYADECHKO, G.P.;

Contact friction in the area of deformation during vibratory drawing. Izv. vys. ucheb. zav.; chern. met. 8 no.2:99-102 '65.
(MIRA 18:2)

1. Kiyevskiy politekhnicheskiy institut.

GOLUBEV, T.M., doktor tekhn. nauk; NIZKOV, A.A.; OMEL'CHENKO, P.P.;
MOROZOV, L.V.

Unit pressure during rolling with continuously increasing
reductions. Met. i gornorud. prom. no.6:27-29 N-D '65.
(MIRA 18:12)

L 21203-66   EWP(e)/EWT(m)/EWP(t)/EWP(k)   JD
ACC NR: AP6001469   (A)   SOURCE CODE: UR/0226/65/000/012/0013/0015

AUTHOR: Ivashchenko, V. V.; Golubev, T. M.

ORG: Kiev Polytechnic Institute (Kiyevskiy ordena Lenina politekhnicheskiy institut)

TITLE: Possibility of manufacturing parts of complex shape by the method of vibrational packing of powder materials

SOURCE: Poroshkovaya metallurgiya, no. 12, 1965, 13-15

TOPIC TAGS: packing material, powder material, vibration, vibration packing, sintering, powder sintering, graphite

ABSTRACT: The paper deals with the manufacture of shaped parts by vibrational packing and sintering in graphite containers. It is shown that spherical powder systems under optimum conditions acquire the property of a liquid and are easily filled in containers of various shapes. Under optimum conditions the filling rate of intricate containers is shown to be proportional to the vibration amplitude. [AM]

SUB CODE: 11/ SUBM DATE: 04Jun65/ ORIG REF: 002

Card 1/1 djw

L 18873-66   EWP(k)/EWT(m)/EWP(e)/EWP(t)   JD
ACC NR: AP5022544   SOURCE CODE: UR/0226/65/000/009/0040/0044

AUTHOR: Ivashchenko, V. V.; Tartakovskiy, I. P.; Golubev, T. M.

ORG: Kiev Polytechnic Institute (Kiyevskiy politekhnicheskiy institut)

TITLE: Investigation of vibration packing of two-component systems of spherical powders /6,44,5?

SOURCE: Poroshkovaya metallurgiya, no. 9, 1965, 40-44

TOPIC TAGS: spheric metal powder, vibration analysis, vibration effect, specific density, packing

ABSTRACT: The vibration packing of a two-component system of spherical powders has been investigated. Experimental data on the effect of the frequency and amplitude of vibration on the rate of packing and the attained density are presented. The optimal operating conditions are determined. It is also shown that the maximum density of the two-component system depends both on the ratio of the quantities of fractions employed and on the ratio of the dimensions of their particles. Orig. art. has: 4 figures and 1 table. [Based on authors' abstract.]   [NT]

SUB CODE: 11/3/ SUBM DATE: 20Jan65/ ORIG REF: 002/ OTH REF: 001

Card 1/1

GOLUBEV, V

GOLUBEV, V., inzh.-kapitan 2 ranga v zapase

The atomic icebreaker "Lenin." Voen.znan.33 no.11:33-34 N '57.

(MIRA 10:12)

(Atomic ships)   (Ice-breaking vessels)

POLTAVTSEV, V.; GOLUBEV, V.

For a wide dissemination of advanced experience. Kinomekhanik no.1:
1-3 Ja '55.   (MIRA 8:2)
        (Motion pictures)

GOLUBEV, V., inzh.; TAMAROV, S., inzh.; DEMSKIY, A., inzh.

Complete milling unit. Muk.-elev. prom. 24 no.1:15-17 Ja '58.
(MIRA 11:2)

1.Gor'kovskiy mashinostroitel'nyy zavod im. Vorob'yeva.
(Grain-milling machinery)

VOLIN, A., kand. tekhn. nauk; KROMER, F., inzh.; GOLUBEV, V., inzh.

A new dust collector. Okhr. truda i sots. strakh. no.4:77-78
Okhr. truda i sots. strakh. no.4:77-78 Ap '59.
(MIRA 12:8)

1.Chelyabinskiy nauchno-issledovatel'skiy institut gornogo dela, Ko-
peysk.
(Dust collectors)

GOLUBEV, V., starshiy nauchnyy sotrudnik

Powerful unit. Pozh.delo 7 no.9:24-25 S '61. (MIRA 14:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut protivopo-
zharnoy oborony.
                    (Fire engines)

GOLUBEV, V.

IUlia Vechurova's work method and textile workers' labor productivity.
Sots. trud 6 no.4:106-110 Ap '61.   (MIRA 16:7)

1. Direktor fabriki "Solidarnost'", Ivanovskiy ekonomicheskiy rayon.
(Ivanovo—Textile industry)

GOLUBEV, V., inzh.

Apartment houses of three-dimensional elements for
building workers' and state-farm settelements. Zhil.
stroi. no.1:10-12 '64.   (MIRA 18:11)

GOLUBEV, V. A.

"The Physiological Acidity of K Salts," D. N. Pryanishnikov, V. A. Golubev, Trudy TSKhA, V, No 1, pp 9-21 (1940), Khim Referat Zhur, IV, No 9, pp 76 (1941) (SEE: Inst. Insect/Fungi. im Ya. V. Samoylov)

SO: U-237/49, 8 April 1949

GOLUBEV, V.A.

More attention to the factory truck transportation system. Spirt. prom. 22 no.2:24-25 '56. (MLRA 9:8)

1. Krasnoznamenskiy spirtovoy zavod.
(Transportation, Automotive)

ALEKSANDROVA, Ariadna Timofeyevna; BRODSKIY, S.I.; SAZHIN, I.I.;
     SHCHIRENKO, G.N.; GOLUBEV, V.A., inzh., red.; FRIDKIN, L.M.,
     tekhn. red.

     [Technical equipment for the manufacture of electric vacuum
     devices] Tekhnologicheskoe oborudovanie elektrovakuumnogo pro-
     izvodstva. Moskva, Gosenergoizdat, 1962. 300 p.
                                                   (MIRA 15:6)
          (Electronic industries--Equipment and supplies)

PANASHCHENKO, I.P., dots.; CHUNTULOV, V.T., dots.; POGREBINSKIY, A.P.,
       prof.; SPATAR, N.G., dots.; LAUTA, S.P., dots.; USTINOVA, L.A.,
       dots.; KRIVEN', P.V., prof.; FILIPPOV, V.I., dots.; GOLUBEV,V.A. ,
       kand. ekon. nauk; DZYUBKO, I.S., dots.; GRIGOR'YEV,A.N., dots.;
       ZATSEPILIN, V.G., dots.; TERESHCHENKO, V.F.; LOYBERG, M.Ya.,
       kand. ist. nauk ; ORLIK, Ye.L., red.; KHOKHANOVSKAYA, T.I.,
       tekhn. red.

[Economic history of foreign countries]Ekonomicheskaia istoriia
zarubezhnykh stran; kurs lektsii. Kiev, Izd-vo Kievskogo univ.
Pt.2.[From the 1870's to the present time]Ot 70-kh godov XIX v.
do nastoiashchego vremeni. 1961. 387 p.   (MIRA 15:11)

1. Prepodavateli kafedr politicheskoy ekonomii i istorii narodno-
 go khozyaystva Kiyevskogo instituta narodnogo khozyaystva (for
 all except Orlik, Khokhanovskaya).
                              (Economic history)

GOLUBEV, V.A..

Technical and economic indices of the work of the Krasno-
znamenskii Distillery. Spirt. prom. 29 no.8:27-28 '63.
(MIRA 17:2)

RABINOVICH, M.S., kand. tekhn. nauk; GOLUBEV, V.A., gornyy inzh.;
        BORODKIN, A.F., gornyy inzh.

        Reliability of mine automatic control equipment. Ugol' 38
        no.12:41-45 '63.   (MIRA 17:5)

        1. Donetskiy filial Gosudarstvennogo proyektno-
        konstruktorskogo instituta avtomatizatsii rabot v ugol'noy
        promyshlennosti.

GOLUBEV, V. A.

"The Effect of the Pathology of the Umbilical Cord on the Fetus." Cand
Med Sci, Leningrad Sanitary Hygiene Medical Inst, Min Health RSFSR; Chair of
Obstetrics and Gynecology, Odessa Inst for the Advanced Training of Physicians
imeni Gor'kiy, Leningrad, 1955. (KL, No 15, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations
Defended at USSR Higher Educational Institutions (16).

GOLUBEV, V.A.

Management of pregnancy and labor in thrombophlebitic splenomegaly.
Akush. i gin. no.4:62-65 Jl-Ag '55.   (MLRA 8:11)

1. Iz kafedry akusherstva i ginekologii (zav.prof. M.A.Petrov-
Maslakov) Leningradskogo sanitarno-gigiyenicheskogo Meditsinskogo
instituta
        (PREGNANCY, in various dis.
            thrombophlebitic splenomegaly)
        (LABOR, in various dis.
            same)
        (SPLENOMEGALY
            thrombophlebitic, pregn. & labor in)

Gclcfev, V. A

GOLUBEV, V.A.(Moskva)

A problem in obstetrics. Fel'd-i akush. no.7:56-58 Jl '55.
(DELIVERY,   (MLRA 8:10)
version, combined, in transverse position)

GOLUBEV, V.A.

Treatment of toxicoses of the first half of pregnancy with
difacil. Trudy LSGMI 37:72-79 '58.   (MIRA 12:8)

1. Kafedra akusherstva i ginekologii Leningradskogo sanitarno-!
gigiyenicheskogo meditsinskogo instituta (zav.kafedroy - prof.
M.A.Petrov-Maslakov).
          (PREGNANCY TOXEMIAS, ther.
                  adiphenine in toxemias of 1st half of pregn.
                  (Rus))
          (PARASYMPATHOLYTICS, ther. use
                  same)

IVANOV, I.P.; GOLUBEV, V.A. (Moskva)

New drugs in the treatment of late toxemias of pregnancy. Sov. med.
24 no. 7:10-17 Jl '60.   (MIRA 13:8)
        (PREGNANCY, COMPLICATIONS OF) (DIURESIS AND DIURETICS)

GOLUBEV, V.A.

Use of culdoscopy and laparoscopy in gynecological practice.
Akush.i gin. no.4:71-74 '61.   (MIRA 15:5)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. K.N.
Zhmakin) I Moskovskogo ordena Lenina meditsinskogo instituta
imeni I.M. Sechenova i ginekologicheskoy basy kafedry 61-y
Gorodskoy klinicheskoy bol'nitsy (glavnyy vrach L.N. Vasilevskaya).
            (ENDOSCOPY)   (GYNECOLOGY)

GOLUBEV, V.A, kand.med.nauk

Some data on polypi of the cervix uteri. Sov. med. 25 no.8:131-135
Ag '61.   (MIRA 15:1)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A.I.Petchenko)
Leningradskogo pediatricheskogo moditsinskogo instituta (dir. -
prof. N.T. Shutova).
                        (UTERUS—DISEASES)

GOLUBEV, V. A., kand. med. nauk

Case of hemigynatresia in a 12-year-old girl. Akush. i gin.
no.2:105-106 '62.   (MIRA 15:6)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A. I.
Petchenko) Leningradskogo pediatricheskogo meditsinskogo instituta
(dir. - prof. N. T. Shutova)

    (GENERATIVE ORGANS, FEMALE--ABNORMITIES AND DEFORMITIES)

GOLUBEV, V.A., kand. med. nauk

Clinical picture of polyposis of the endometrium.   Akus. i gin.
no.1:112-115 '63.   (MIRA 17:6)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. A.I.
Petchenko) Leningradskogo pediatricheskogo meditsinskogo
instituta (dir. - prof. N.G. Shutova).

GOLUBEV, V.A.; ROZANTSEV, E.G.; NEYMAN, M.B.

Some free iminoxyl reactions involving an unpaired electron.
Izv. AN SSSR. Ser. khim. no.11:1927-1936 '65.
(MIRA 18:11)

1. Institut khimicheskoy fiziki AN SSSR.

L 10199-66   EWT(m)/EWP(j)/EWA(c)   RPL   RM

ACC NR: AP5028458   SOURCE CODE: UR/0286/65/000/020/0021/0021

AUTHORS: Rozantsev, E. G.; Golubev, V. A.; Neyman, M. B.

ORG: none

TITLE: Method for obtaining individual polyradicals. Class 12, No. 175504

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 21

TOPIC TAGS: polyradical, polymer triethylamine, polymerization

ABSTRACT: This Author Certificate presents a method for obtaining individual poly-
radicals. To obtain polyradicals stable towards oxygen, the stable radical 2,2,6,
6.-tetramethyl-4-oxypiperidine-1-oxyl is reacted with hexamethylenediisocyanate in
benzene solution at a temperature of ∼ 100C or with phosphorus trichloride in ben-
zene solution in presence of triethylamine at 0C, or with the tetrachloroanhydride
of pyromellitic acid in piperidine solution at 0C.

SUB CODE: 07/ SUBM DATE: 24Oct64/

Card 1/1   UDC: 547.77.8.024

L 25618-66   EWT(m)/EWP(j)   JW/RM

ACC NR: AP6016109   SOURCE CODE: UR/0062/65/000/011/1927/1936

AUTHOR: Golubev, V. A.; Rosantsev, E. G.; Neyman, M. B.

ORG: Institute of Chemical Physics, AN SSSR (Institut Khimicheskoy fiziki AN SSSR)

TITLE: Some reactions of free iminoxyl radicals with the participation of an unpaired electron

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 11, 1965, 1927-1936

TOPIC TAGS: organic nitrogen compound, halide, chemical reaction, alcohol, ketone, aldehyde, hydroxylamine

ABSTRACT: Previously unknown iminoxyl halides were produced by the action of chlorine and bromine on free iminoxyl radicals. The reactions of the iminoxyl halides with water, amines, and alcohols were studied. The reaction of 2,2,6,6-tetramethyl-4-hydroxypiperidine-1-oxyl chloride with water results in the formation of the initial radical and a number of other reaction products, from which only 2,2,6,6-tetramethyl-4-oxopiperidine-1-oxyl could be isolated. The vigorous reaction of iminoxyl halides with amines also leads to the formation of iminoxyl radicals. The reactions of iminoxyl halides with primary and secondary alcohols give quantitative yields of the corresponding hydroxylamines; primary alcohols are oxidized to the corresponding aldehydes, while secondary alcohols are oxidized to the ketones. In the case of tertiary butyl alcohol, the formation of an intramolecular ring is impossible, and the reaction proceeds according to a

Card 1/2   UDC: 541.515+542.91

L 25618-66

ACC NR: AP6016109   O

radical mechanism, indicated by a rapid increase in the concentration of the
iminoxyl radical. The interaction of iminoxyl radicals with hydrogen chloride
depends on the solvent in which the reaction takes place and on the concen-
tration of the hydrochloric acid. Orig. art. has: 2 figures, 6 formulas, and
1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 17Jun65 / ORIG REF: 014 / OTH REF: 005

Card   2/2

ACC NR: AP6033949   SOURCE CODE: UR/0294/66/004/005/0606/0610

AUTHOR: Golubev, V. A.; Ivanov, Yu. N. (Moscow)
(Moscow)
ORG: none

TITLE: Investigation of the radiating ability of argon at high temperatures and pressures

TOPIC TAGS: argon, emissivity, temperature dependence, pressure effect, radiation intensity, arc discharge

ABSTRACT: The authors describe equipment, a procedure, and results of an experimental investigation of the radiating ability of argon heated in a dc arc to 11 000 - 12 000K at pressures $p \approx 5 \times 10^5 - 10^7$ N/m². The apparatus (Fig. 1) and the test procedures are described. The absolute intensity of the argon-arc radiation was measured by comparison with a standard source (tungsten lamp), the spectrum of which was photographed on the same plate as that of the argon. The results show that with increasing pressure and current the total radiation energy of the argon increases in spite of a slight decrease in the diameter of the arc at approximately constant temperature on the discharge axis. This indicates that the degree of blackness of the argon increases with pressure. Comparison of the experimental data with the theoretical calculations shows satisfactory agreement. The authors thank G. N. Abramovich, Yu. V. Moskvin, V. D. Klimkin, A. V. Shelin, V. M. Ladygina, and B. A. Kozlenko for valuable advice

Card 1/2   UDC: 537.562
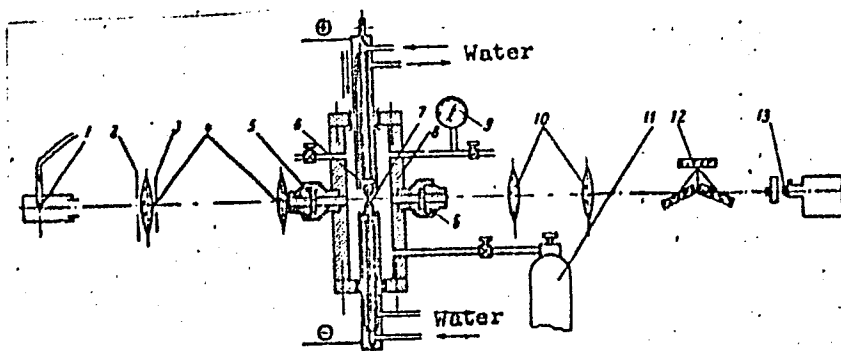
ACC NR: AP6033949

Fig. 1. Diagram of apparatus. 1 - Pyrometer, 2,3 - diaphragms, 4 - quartz lens, 5 - quartz window, 6,7 - electrodes, 8 - high-pressure chamber, 9 - manometer, 10 - quartz condenser, 11 - argon flask, 12 - mirror system, 13 - spectrograph

and help with the work. Orig. art. has: 5 figures and 3 formulas.

SUB CODE: 20/   SUBM DATE: 11Jun65/   ORIG REF: 010/   OTH REF: 006

Card 2/2

ROZANTSEV, E.G.; GOLUBEV, V.A.; NEYMAN, M.B.

Some free iminoxyl radicals in the series of hydrogenated pyridine.
Izv. AN SSSR Ser. khim. no.2:391-393 '65.

First kinetically stable individual iminoxyl biradical. Ibid.:393-394   (MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR.

Golubev V A

GOLUBEV, V.A. (Kuvshinovo, Kalininskoy oblasti).

About a problem. Mat. v shkole no.1:91-92 Ja-F '58.   (MIRA 11:1)
(Mathematics--Curiosa and miscellany)

GOLUBEV, V.A. (Kuvshinovo).

Review of recent works on the elementary number theory.
Mat. v shkole no.6:67-71 N-D '58.   (MIRA 11:12)
              (Numbers, Theory of)

SKOPETS, Z.A. (Yaroslavl'); OSTROVSKIY, A.I. (Moskva); BESKIN, L.N. (Moskva);
     BALK, M.B. (Smolensk); BORSUK, M.V. (L'vov); BYKOV, A.M. (Baku);
     CHANTURIYA, Z.A. (Tbilisi); NOVIKOVA, V.S. (Orekhovo-Zuyevo); DUBNOV,
     Ya.S. (Moskva); STECHKIN, S.B. (Moskva); KHAVIN, L.P. (Leningrad);
     ERDNIYEV, P., (Stavropol'); CHIARRULI, D.L. (GruzSSR); ASEKRITOV, U.M.
     (Yaroslavl'); GOLUBEV, V.A. (Kuvshinovo); MALININ, V.V. (Leningrad);
     DAVYDOV, U. (Gomel'); ROZENBERG, V.I. (Leningrad); TIKHONOV, P.G.
     (Karaganda); ROMANCHUK, M.A. (Khar'kov); MINLOS, R.A. (Moskva); OGAY,
     S.V. (Frunze); ROFE-BEKETOV, F.S.; BERSHTEYN, A. (Moskva); ARLAZAROV,
     V.L. (Moskva)

Solutions to problems. Mat.pros.   no.4;253-270 '59.

(MIRA 12:11)

(Mathematics--Problems, exercises, etc.)

8

16(1)

AUTHOR: Golubev,V.A.

SOV/140-59-5-9/25

05253

TITLE: Generalized Number Functions and Distribution of Groups of Prime Numbers

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 5, pp 93-97 (USSR)

ABSTRACT: Let $\varphi^m(n)$ denote the number of groups consisting of m natural numbers $a_1,a_2,\ldots,a_m$ so that $a_2-a_1 = s_1, a_3-a_2 = s_2,\ldots a_m-a_{m-1} = s_{m-1}$, where the s_i are fixed even differences; $(a_i,n) = 1$, $i=1,2,\ldots,m$; $n_2-n_1 = n$, $n_1 < a_1 \leq n_2$. It holds

$$(1) \quad \varphi^m(n) = n \prod_{p_1 \ldots p_m} (1-\frac{1}{p_1})(1-\frac{2}{p_2})\ldots(1-\frac{m}{p_m}) ,$$

where p_j are prime divisors of n so that the sequence

$0, s_1, s_1+s_2,\ldots,s_1+s_2+\ldots+s_{m-1}$ yields j different remainders mod p_j.

The author considers some applications of the function (1) to arithmetic series of prime numbers (e.g. there exists no arithmetic series with 11 or more prime numbers and with the difference d=210).

Card 1/2

05253

Generalized Number Functions and Distribution
of Groups of Prime Numbers

SOV/140-59-5-9/25

Some further functions are introduced:

a) $\qquad \varphi_2(n) = \frac{1}{2} n \prod_{p|n}(1 - \frac{2}{p})$, $p > 2$ and prime,

b) $\mu_2(n) = \begin{cases} (-2)^k \text{ if } n = p_1 \cdots p_k, \ p_i \neq p_j, \text{ all prime} \\ (-1)^{k+1} \cdot 2^k \text{ if } n = 2p_1 \cdots p_k \\ \mu(n) \text{ in other cases .} \end{cases}$

There are 2 tables, and 5 non-Soviet references, of which 1 is
American, 1 Swedish, 1 Bulgarian, 1 Czecho-Slovakian, and
1 Austrian.

SUBMITTED: June 12, 1958

Card 2/2

GOLUBEV, V.A. (Kuvshinovo)

Review No.2 of contemporary works pertaining to the elementary theory
of numbers. Mat v shkole no.5:72-76 S-O '60.   (MIRA 13:10)
(Numbers, Theory of)

SERPINSKIY, Vatslav [Sierpinski, Waclaw]; GOLUBEV, V.A. [translator];
    DOLGOPOLOV, V.G., red.; MAKAROVA, N.F., tekhn.red.

[One hundred simple and yet difficult arithmetical problems;
on the border between geometry and arithmetic (textbook for
teachers)] Sto prostykh, no odnovremenno i trudnykh voprosov
arifmetiki; na granitse geometrii i arifmetiki (posobie dlia
uchitelei). Predisl. i primechaniia V.A.Golubeva. Moskva.
Uchpedgiz, 1961. 74 p. Translated from the Polish.
                                              (MIRA 15:5)

1. Vitse-prezident Pol'skoy Akademii nauk (for Serpinskiy).
        (Arithmetic--Problems, exercises, etc.)

GOLUBEV, V.A. (Kuvshinovo); FOMENKO, O.M. (Krasnodar)

On functions $\varphi_2(r)_1 \mu_2(n)_1 \mathcal{C}_2(s)$. Annales Pol math 11 no.1:
13-17 '61.

GOLUBEV, V.A. (Kuvshinovo SSSR)

Cubic polynomial with many non-square values. Cas pro pes mat 87 no.4:496 O '62.

GOLUBEV, V.A. (g. Kuvshinovo)

Number of groups of prime numbers and prime numbers of exponential forms. Izv.vys.ucheb.zav.; mat. no.6:28-33 '62.   (MIRA 15:12)
(Forms (Mathematics))   (Numbers, Prime)

GOLUBEV, V.A.   (Kuvshinovo, U.S.S.R.)

Whole number solution of some Diophantine equations. Cas pro pest mat 89 no.3:362 Ag '64.

Compound numbers acquiring the values of prime numbers. Ibid.: 362-363 Ag '64.

oxyl; phosphite(II):

ROZANTSEV, E.G.; GOLUBEV, V.A.; NEYMAN, M.B.; KOKHANOV, Yu.V.

New stable iminoxyl biradicals. Izv. AN SSSR. Ser. khim. no.3:
572-573 '65.   (MIRA 18:5)

1. Institut khimicheskoy fiziki AN SSSR.

Prozantsev, E. G.; Golubev, V. A.

free tetraradicals

BUCHACHENKO, A.L.; GOLUBEV, V.A.; MEDZHIDOV, A.A.; ROZANTSEV, E.G.

Electron paramagnetic resonance spectra of biradicals having a weak exchange reaction. Teoret. i eksper. khim. 1 no.2:249-253 Mr-Ap '65.
(MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

L 4111-66   EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2   IJP(c)   AT

ACCESSION NR: AP5025979   UR/0294/65/003/005/0669/0676
                                                533.915
AUTHOR: Golubev, V. A. (Moscow); Mockvin, Yu. V. (Moscow); Khovrin, S. K.(Moscow)

TITLE: Theoretical and experimental investigation of the radiation of a water plasma
SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 5, 1965, 669-876

TOPIC TAGS: plasma radiation, plasma arc, water vapor

ABSTRACT: The article starts with an analysis of the contribution of different optical processes to the total radiation of a water plasma and a calculation of the magnitude of the light fluxes. The radiation of a gaseous layer of thickness L can be calculated by the formula for a hemispherical layer:

$$e = \int_0^\infty B_\nu [1 - \exp(-k_\nu l)]\, d\nu, \qquad (1)$$

where k_ν is the overall absorption coefficient with respect to all optical processes. The composition of water vapor plasmas was calculated theoretically from litera-
Card 1/2

L 4111-66
ACCESSION NR: AP5025979

ture data and the results are shown in tabular form. The analysis shows that the radiation of a plasma is determined by atomic, ionic, and electronic components, while the molecular component can be neglected. The experimental investigations to determine the radiant heat fluxes were made on a direct current electric arc heater with a power of 150 kilowatts. The source of the plasma jet was an arc discharge between an end type anode and an annular cathode, with water stabilization. The anode and the cathode were made of graphite. The temperature in cross sections of the jet was determined spectrographically, using the H atomic hydrogen line. The radiant energy in the plasma jet was determined with a TERA-50 radiometer. Experimental results are shown to be in sufficiently good agreement with theory, in respect to the absolute magnitudes of the radiant fluxes as well as in respect to their overall change with temperature. Orig. art. has: 2 formulas and 5 figures

ASSOCIATION: None

SUBMITTED: 28Sep64   ENCL: 00   SUB CODE: ME

NR REF SOV: 011   OTHER: 019

Card 2/2

BUCHACHENKO, A.L.; GOLUBEV, V.A.; NEYMAN, M.B.; ROZANTSEV, E.G.

Electron paramagnetic resonance spectra of individual polyradicals.
Dokl. AN SSSR 163 no.6:1416-1418 Ag '65.

(MIRA 18:8)

1. Institut khimicheskoy fiziki AN SSSR. Submitted January 21, 1965.

SOLNTSEV, V.P.; GOLUBEV, V.A.

Investigating the process of combustion of gasoline-air mix-
ture under conditions of interaction of turbulent trails origi-
nated in stabilizers. Izv.vys.uchob.zav.; av.tekh. 2 no.3:
112-118 '59.   (MIRA 12:12)

1. Moskovskiy aviatsionnyy institut. Kafedra AD-1.
     (Combustion) (Turbulence)

BESHAGIN, Sergey Pavlovich; GOLUBEV, V.A., red.; BORUNOV, N.I., tekhn.
        red.

        [Flame process tooling for the industrial equipment used in
        electric vacuum production] Ognevoe osnashchenie tekhnologi-
        cheskogo oborudovaniia elektrovakuumnogo proizvodstva. Moskva,
        Gos.energ.izd-vo, 1960. 255 p.   (MIRA 13:7)
            (Glass blowing and working--Equipment and supplies)
              (Flame hardening--Equipment and supplies)
                    (Electron tubes)

GOLUBEV, V. A.

PHASE I BOOK EXPLOITATION   SOV/5752

Gorbunov, G. M., Candidate of Technical Sciences, Docent, ed.

Stabilizatsiya plameni i razvitiye protsessa sgoraniya v turbulentnom
   potoke; sbornik statey (Stabilization of the Flame and the De-
   velopment of the Combustion Process in a Turbulent Flow; Collection
   of Articles) Moscow, Oborongiz, 1961. 169 p. Errata slip inserted.
   2,650 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo
   obrazovaniya RSFSR.

Ed.: K. Ya. Zaytseva, Engineer; Ed. of Publishing House: N. G.
   Kopylova; Tech. Ed.: V. P. Rozhin; Managing Ed.: A. S. Zaymovskaya,
   Engineer.

PURPOSE: This collection of articles is intended for engineers and
   scientific workers concerned with combustion problems, and for
   advanced students in related courses in schools of higher tech-
   nical education.

Card 1/3

Stabilization of the Flame (Cont.)   SOV/5752

COVERAGE: The collection contains 7 articles describing experi-
mental investigations of the mechanism of flame stabilization
and propagation in open and closed turbulent flows. Experi-
mental data on intensity, extent and frequency patterns of tur-
bulence, temperatures, flame ionization, etc., are presented.
The investigations contribute to a better understanding of some
of the phenomena taking place in a ramjet combustion chamber.
The authors thank V.B. Rutovskiy, I. S. Makarov, A. V. Goryacheva,
V. I. Biteryakova, and Ye. V. Trofimova. References accompany
six articles.

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Stabilization of the Flame (Cont.)   SOV/5752

Gorbunov, G. M. [Candidate of Technical Sciences]. Effect of
Turbulence Parameters on the Velocity of Flame Propagation   31

Solokhin, E. L. [Candidate of Technical Sciences]. Investigation
of Flame Propagation and Stabilization Behind a Trough-Shaped
Stabilizer   48

Solntsev, V. P. Effect of Turbulence Parameters on the Combustion
Process in a Homogeneous Gasoline-Air Mixture Behind a Stabilizer
Under Closed-Flow Conditions   75

Solntsev, V. P., and V. A. Golubev. Combustion of a Gasoline-Air
Mixture Behind Stabilizer Systems   109

Vlasov, K. P. [Candidate of Technical Sciences]. Calculation of
a Simple Ramjet-Type Combustion Chamber   128

Inozemtsev, N. N. Ionization in Laminar Flames   149

AVAILABLE: Library of Congress

Card 3/3   AC/rsm/ec
                                                            11-6-61

34124
S/124/62/000/001/023/046
D237/D304

26.2135
11.7200

AUTHORS: Solntsev, V. P., and Golubev, V. A.

TITLE: Combustion of benzene-air mixture behind stabilizing systems

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1962, 81, abstract 1B576 (V sb. Stabilizatsiya plameni i razvitiye protsessa sgoraniya v turbulentn. potoke. M., Oborongiz, 1961, 109-127)

TEXT: The purpose of the experimental investigation was to study the development of the process of combustion with interaction of turbulence traces, appearing behind the stabilizers, placed in a train consisting of similar and/or different form and size stabilizers. Development of the combustion process was studied on a homogeneous benzene-air mixture with excess of air α = 1.5 when the stream velocity was w = 50 m/sec. and the initial temperature t = 120°C. The dimensions of rectangular

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Combustion of benzene-air...

S/124/62/000/001/023/046
34124
D237/D304

combustion chamber were 300 x 175 x 1000 mm. Conflagration and combustion processes were observed through quartz windows. Temperatures were measured by platinum-platinoividium thermocouples, and temperature fields obtained in the flame served as a basis for conclusions on the influence of the form and size of the stabilizer and on the presence or absence of the influence of the turbulent traces forming behind the stabilizers on the combustion process. The combustion behind isolated stabilizers was investigated at the same time. In the case of the angular stabilizer with slitted flaps bent into the position transverse to the stream flow, it was found that the axial temperature behind such a stabilizer was higher than that behind the normal angular stabilizer. Higher combustion intensity behind a slitted stabilizer was explained by more intense turbulence behind it compared with other types of stabilizer. During the study of stabilizer trains, it was found that behind such systems the combustion inside the flame jet was more intense and terminates sooner than that behind

Card 2/3

34124
S/124/62/000/001/023/046
Combustion of benzene-air...   D237/D304

an isolated stabilizer. As a result of investigating the influ-
ence of change of stabilizer position in the train on the hy-
draulic resistance of the combustion chamber, it was stated that
the lowering of hydraulic resistance can be achieved by axial
displacement of extreme edge stabilizers in a direction radial to
the middle stabilizer. Also, it was inferred that intensifica-
tion of the combustion process behind the stabilizer can be
achieved by superimposing on the turbulence trace formed behind
the stabilizer another flow with higher intensity and of dimen-
sionally smaller turbulence. /Abstracter's note: Complete
translation._/

Card 3/3

10·4100   2115, 2807, 2607

//,7430

23749

S/170/ 61/004/006/003/015
B129/B212

AUTHOR: Golubev, V. A.

TITLE: Theoretical investigation of a turbulent, plane-parallel
              high-temperature jet considering dissociation and ionization

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 6, 1961, 42-50

TEXT: The interest in high-temperature gas streams has grown recently in
connection with its practical application. For example, by using such
jets it is possible to simulate the flow around various bodies by currents
of high temperature and high velocity. In order to calculate the effect
of the jet on the body it is necessary to know the parameters of the jet
at an arbitrary point. Several papers deal with the calculation of the
jet parameters for compressed liquids but they only consider relatively
low temperatures. The present paper brings an investigation of the bounda-
ry layer differential equations considering the dissociation and ionization
of the gas. The author starts from the Taylor turbulence model and from
the turbulence transfer and the relation $\varrho = A/i^n$ between density and
enthalpy the system

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$$\rho \ddot{u} \frac{\partial \bar{u}}{\partial x} + \rho \bar{v} \frac{\partial \bar{u}}{\partial y} = \bar{\rho} l_\tau^2 \frac{\partial \bar{u}}{\partial y} \frac{\partial^2 u}{\partial y^2},$$

$\qquad\qquad\qquad\qquad\qquad\qquad$ (1)

$$\frac{\partial}{\partial x} (\rho \bar{u}) + \frac{\partial}{\partial y} (\rho \bar{v}) = 0,$$

$\qquad\qquad\qquad\qquad\qquad\qquad$ (2)

$$\rho \vec{u} \frac{\partial \bar{i}}{\partial x} + \rho v \frac{\partial \bar{i}}{\partial y} = \frac{\partial}{\partial y} \left[\bar{\rho} l_\tau^2 \frac{\partial \bar{u}}{\partial y} \frac{\partial \bar{i}}{\partial y} \right] +$$

$$+ \frac{1}{Ig} \bar{\rho} l_\tau^2 \left(\frac{\partial \bar{u}}{\partial y} \right)^3.$$

$\qquad\qquad\qquad\qquad\qquad\qquad$ (3)

is found for a plane-parallel gas jet. This system is solved by changing
to reduced variables and the equation of motion
$F + d^2/\tau^n d\varphi^2 (F'\tau^n) = 0$ (11) and the energy equation $\tau''/\tau' - n\tau'/\tau = 0$
(12) are obtained. The general solution of (11) at any n is unknown to
the author, and various particular solutions of this differential equation

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Theoretical investigation of a ...

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are studied. (12) may be solved at any n for the general case. The solutions obtained make it possible to calculate the jet parameters and its boundaries. A solution has been obtained for the equation of motion at n = 2/3 and n = 1/3 (n - parameter of the surrounding medium) The above solutions together with the solutions of n = 1 and n = 0 permit calculation of the equation of motion for the range from n = 0 to n = 1. Based on the calculation of a large range of initial preheating values τ_H for n = 0 to 1 it is possible to obtain rapidly values for inner and outer boundaries of the jet (Fig. 2) and also of all its parameters in the cross section. There are 4 figures and 9 Soviet-bloc references.

ASSOCIATION: Moskovskiy aviatsionnyy institut, g. Moskva (Moscow Aviation Institute)

SUBMITTED: February 20, 1961

Card 3/4

GOLUBEV, V.A., inzh&

      Assembling heat exchange equipment. Sudostroenie 27 no.11:49-50
      N '61.   (MIRA 15:1)
                (Marine engineering)

GOLUBEV, V.A. (Moskva)

Calculating a turbulent jet with a very high temperature. Inzh.
zhur. 1 no.4:51-58 '61.   (MIRA 15:4)
            (Turbulence)   (Jets)

ABRAMOVICH, G.N.; BAKULEV, V.I.; GOLUBEV, V.A.; SMOLIN, G.O   (Moscow)

"Investigation of turbulent plasma and real gas jets"

report presented at the 2nd All-Union Congress of Theorectical and Applied
Mechanics, Moscow, 29 January - 5 Frbruary 1964

5.3400

69141

AUTHORS: Golubev, V. B., Boyarchuk, Yu. M.,   S/076/60/034/03/036/038
            Yevdokimov, V. B.   B005/B016

TITLE: Magnetochemistry of Active Centers. Stabilization of Free Radicals
            on a Surface and Electron Paramagnetic Resonance in Quinhydrone
            Salts

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 3, pp 696-697 (USSR)

TEXT: In the adsorption of quinhydrone from its solutions onto crystalline
barium hydroxide the latter turns blue. According to reference 1 the electron
paramagnetic resonance spectrum of this system consists of a line which is some
oersteds wide, and for which $g = 2.003 \pm 0.001$. Although the characteristic hyper-
fine structure of the resonance spectrum line of p-benzosemiquinone could not be
detected, the authors of reference 1 assigned this line to the radical ion of
semiquinone which is formed on the surface of $Ba(OH)_2 \cdot 8H_2O$ and stabilized by the
surface. The authors of the present paper refer to the paper mentioned. They took
the electron paramagnetic resonance spectra of the salt of quinhydrone (I) and of
the system quinhydrone - $Ba(OH)_2 \cdot 8H_2O$ (II). The two spectra proved to be identi-
cal and consisted of one single peak with $g = 2.0040 \pm 0.0002$ and a half-width of
4.5 oersteds. The reflection spectra of the two systems in the visible region

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Magnetochemistry of Active Centers. Stabilization of   S/076/60/034/03/036/038
Free Radicals on a Surface and Electron Paramagnetic   B005/B016
Resonance in Quinhydrone Salts

of the spectrum are also identical. The concentration of free radicals in the
two systems was determined in two ways. At room temperature, it is about 2% of
the total weight of the salt for system (I) and about 4% of the quantity of the
adsorbed quinhydrone for system (II). The concentration of the free radicals
rises monotonely with an increase in temperature from 77 up to $273^{\circ}K$ (Fig).
Side reactions occur in system (II) at high temperatures, which are due to
liberation of crystallization water. An irreversible steep decrease of the free
radical concentration sets in in system (I) at $326^{\circ}K$ which is ascribed to
resinification. The following results were obtained: (1) the semiquinone surface
is stabilized by a chemical reaction similar to the homogeneous formation
reaction of the quinhydrone salt; (2) under standard conditions the quinhydrone
salt is the diamagnetic dimer of semiquinone. The authors determined the degree
of dissociation for the free salt of quinhydrone, for its alcoholic solution,
and for system (II), as well as the dissociation heats of the dimeric form. The
authors further investigated the kinetics of semiquinone polymerization in
alcoholic solution. This polymerization proved to be a second-order reaction
with an activation energy of 14000 calories/mole. The authors expressed their

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